APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,034	12/18/2003	Yoshiya Hirase	883.0006.U1(US)	2513

29683   7590   05/28/2008
HARRINGTON & SMITH, PC
4 RESEARCH DRIVE
SHELTON, CT 06484-6212

EXAMINER
ZHE, MENG YAO

ART UNIT	PAPER NUMBER
2195	

MAIL DATE	DELIVERY MODE
05/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *08 February 2008*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-17* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-17* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-17 are presented for examination

2.   The affidavit filed on 2/8/2008 under 37 CFR 1.131 is sufficient to overcome the

Karam et al., Patent No. 7,111,089 reference.

Double Patenting

3.   A rejection based on double patenting of the "same invention" type finds its
support in the language of 35 U.S.C. 101 which states that "whoever invents or
discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis
added). Thus, the term "same invention," in this context, means an invention drawn to
identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re
Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164
USPQ 619 (CCPA 1970).

      A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by
canceling or amending the conflicting claims so they are no longer coextensive in
scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection
based upon 35 U.S.C. 101.

4.   Claims 1-17 are provisionally rejected under 35 U.S.C. 101 as claiming the same

invention as that of claims 1-17 of copending Application No. 10740036. This is a

<u>provisional</u> double patenting rejection since the conflicting claims have not in fact been

patented.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hoskins, Patent No. 6,789,132 in view of Kaihlaniemi, Patent No. 6,370,591 (hereafter

Kaihlaniemi).

7.   Hoskins and Kaihlaniemi were cited in the previous office action.

8.   As per claims 1 and 7, Hoskins teaches a device architecture for running

applications, comprising:

A processor arranged to run an Dynamic Configurable Hardware Logic (DCHL)

layer comprised of a plurality of Logic Elements (LEs) (Fig 2, unit 110 and all of unit 202

except unit 222);

interposed between a host computer (Fig 2, unit 200) and said DCHL layer, a

TiEred Multi-media Acceleration Scheduler (TEMAS) that cooperates with the host

computer for scheduling and configuring the LEs of the DCHL to execute applications

(Column 5, lines 35-39; Column 6, lines 1-10, lines 41-47; Column 7, lines 1-19) in

accordance with inherited application priorities.

9.   Hoskins does not specifically teach that the host computer has an operating

system comprising an OS scheduler that the TEMAS cooperates with.

However, Kaihlaniemi teaches personal computers running operating systems that are able to communicate with external devices (Column 1, lines 11-33) for the purpose of controlling devices using operating systems. It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have combined the teachings of Hoskins with the host computer has an operating system comprising an OS scheduler that the TEMAS cooperates with, as taught by Kaihlaniemi, because it allows for the operating system to control devices.

10.   As per claims 2, 8, 14, Hoskins teaches where the TEMAS is comprised of a Tier-1 scheduler that communicates with the OS scheduler and at least one Tier-2 scheduler (Fig 3, units 303, 305, and 307) interposed between the Tier-1 scheduler and one DCHL configurable device (Column 6, lines 50-57; Column 7, lines 1-19; Column 8, lines 39-44).

11.   As per claims 3, 9, 15, Hoskines teaches where the TEMAS operates in response to configuration requests to configure and reconfigure at least some of the plurality of LEs in accordance with at least one algorithm logic (Column 7, line 1-9; Column 8, lines 39-64; Column 9, lines 10-21).

12.   As per claims 4, 10, 16, Hoskins teaches where said plurality of LEs are

disposed within at least one context plane (Fig 2, unit 110 and all of unit 202 except unit

222).

13.   As per claims 5, 11, Hoskins teaches an application layer that comprises at least

one application (Column 20, lines 34-37), a service layer that comprises said Tier-1

scheduler (Fig 2, unit 222), a node layer that comprises said at least one Tier-2

scheduler that is coupled to a scheduling algorithm of said Tier-1 scheduler (Fig 3, units

303, 305, 307, 301), and a hardware layer that comprises said at least one DCHL

configurable device (unit 110 and unit 212).

        Kaihlaniemi teaches an operating system with scheduler (Column 1, lines 12-28)

14.   As per claim 6, 12, Kaihlaniemi teaches where said device comprises a device

having wireless communications capability (Column 1, lines 48-50).

15.   As per claim 13, Hoskins teaches an applications layer comprising a plurality of

applications (Column 20, lines 34-37); a hardware layer comprising Dynamic

Configurable Hardware Logic (DCHL) comprised of a plurality of Logic Elements (LEs)

(unit 110 and unit 212); and interposed between host computer and said DCHL in said

service layer and in a node layer, a TiEred Multi-media Acceleration Scheduler

(TEMAS) that cooperates with the host computer for scheduling and configuring the LEs

of the DCHL to execute said applications (Column 5, lines 35-39; Column 6, lines 1-10,

lines 41-47; Column 7, lines 1-19).

Kaihlaniemi teaches personal computers running operating systems that are able

to communicate with external devices (Column 1, lines 11-33) and a wireless

communication device (Column 1, lines 48-50).

16. As per claim 17, Kaihlaniemi teaches where said device comprises a cellular

telephone (Column 1, lines 48-50).

Response to Arguments

17. Applicant's argument filed on 2/8/2008 regarding claims 1-17 have been fully

considered but are not persuasive.

18.   In the remark applicant argued in substance that:

i) Pg 11, The scheduler module is not a TEMAS, which is "a multi-layered

scheduler, such as a two-layered scheduler".

ii) Pg 12, Hoskins does not disclose "inherited application priorities".

The Examiner respectfully disagree with the applicant, as to point

i)   Based on the specification, a TEMAS is a two-layer scheduler that has a

layer one that communicates with the OS scheduler and a layer two that is

interposed between layer one and a hardware device. Hoskin discloses a host

computer (Fig 1, unit 200) that indirectly accesses and partially controls a data

storage device through a disc drive control module (Fig 2, unit 108). The

Examiner equates the disc drive control module to a TEAMS because it is a two-

layered scheduler in the following way. The disc drive control module contains a

host module that handles host related functions including control and interrupt

commands sent from the host computer to the disc drive control module (Column

5, lines 35-39; Column 7, lines 1-9). Since the disc drive control module is used

to communicate with the host computer, it is considered to be layer one of the

disc drive control module. Moreover, this disc drive control module has access to

the disc-servo module (Column 7, lines 7-9). The disc-servo module, in turn, is

used for direct control of reading and writing to the disc of the data storage

device (Column 7, lines 16-20). Since the applicant never specifically defined

what is meant by the layer two being "interposed between layer one" and a

hardware device, the Examiner considers the disc-servo module to be layer two

of the multi-layered scheduler since it is interposed between two things in the

sense that layer one host module controls layer two disc-servo module, which in

turn directly controls the data storage device.

ii)   Since the applicant never specified what the applications are or does, how

they are related to the OS and the TEAMAS, and where the applications are

situated to run, the Examiner has interpreted the applications to be groups of

command instructions that are scheduled to be run by all the modules present in

the disc drive control module. Hoskins discloses this in his invention where the

scheduler module schedules different modules with their associated commands to be run at different times (Column 11, lines 25-40; Column 11, lines 59-Column 12, lines 10). Moreover, those commands may have priorities assigned to them (Column 2, lines 10-22; Column 19, lines 1-5; Column 20, lines 34-37).

Conclusion

1.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195